

Appl. No. 09/869,653
Amdt. Dated February 2, 2004
Reply to Office action of October 2, 2003

REMARKS

Claim 1 has been cancelled, while the subject matter thereof has been incorporated into existing claims 2, 10 and 12. Claim 9 has also been amended to depend on claim 2 instead of cancelled claim 1.

The rejection of claims 2, 3 and 9 as anticipated by US 6,108,083 to Machler is respectfully traversed insofar as it applies to the claims as amended. Machler fails to disclose a flexible tube being configured into a coil with at least a portion of a first light source being arranged in the coil, as indicated in claim 2. The portion of Machler's specification relied on by the examiner for this teaching, col. 8, lines 23-30, says nothing about a coil. Rather, it merely indicates that the non-absorbing coating on the exterior of a cylindrical capillary causes light inside the capillary to remain focused on the sample in the capillary's interior. Moreover, the drawing relied on by the examiner for this teaching, Figure 15, shows that the tube defining the liquid core is completely straight. Indeed, it is clear from col. 21, line 41 to col. 24, line 67, that all embodiments of the patented device disclosed in Figs. 15-23 of the patent employ a liquid core which is straight, with no information being given about its flexibility.

Thus, the Machler patent fails to disclose a light source being at least partially arranged inside a coil formed by a flexible tube defining a liquid core. Therefore, it fails to anticipate these claims under 35 U.S.C. §102.

The rejection of claims 10, 17 and 18 under 35 U.S.C. §103 is also respectfully traversed. The Rockwell III patent (U.S. 5,596,671, not U.S. 5,604,587 as indicated by the examiner) does indeed show GRIN lenses, as noted by the examiner. In addition, this patent also teaches that such lenses "allow a parallel beam of light to be focused to a very small size" and "are commonly used to focus collimated laser light into single mode tele-communication fibers." See, col. 27, lines 57-63.

However, the only embodiments of the Machler device in which light is transmitted through the walls of the tube defining the liquid core, as recited in claim 1, or between the liquid core and a light conduit spaced from the liquid core, as recited in claim 17, are the embodiments described in Figs. 15-23. In all of these embodiments, light is transferred into and out of the liquid core (or at least just out of the liquid core in the Fig. 21/22 embodiment) by means of the unique coupling device illustrated in Fig. 16 – it being clear that employment of this particular

(JEM1154.DOC;1)

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light conducting device is a fundamental and critical part of the invention of all these embodiments. Note especially from col. 21, line 53 to col. 22, line 8 and Fig. 16 of the Machler patent that, in order for this unique coupling device to function, it must be (1) arranged at precisely 20°-25° with respect to the liquid core, (2) include a conical section facing toward the liquid core having a cone angle of exactly 40°-45°, (3) include a conical section facing away from the liquid core having a cone angle of exactly 26°, and (4) have a cylindrical section between these two conical sections.

Since this unique light connecting device is a fundamental and critical part of the Machler invention, and since this light connecting device must define a precise set of geometric shapes and angles to function properly, it is clear that the motivation to combine the Rockwell III and Machler patents as done in this rejection is based on a hindsight reconstruction of the prior art using applicants' specification as a guide, not a detached and disinterested assessment of what these references fairly suggest. This is especially so, since the examiner not only fails to explain why it would have been obvious to make the asserted modification, but more significantly even fails to identify what this particular modification might be. Thus, it is unclear from this rejection how a person of ordinary skill in the art would modify the devices shown in Figs. 15-23 of the Machler patent with the GRIN lens of Rockwell III to achieve the invention now being claimed, which in turn is a clear indication that this rejection is based on hindsight.

In other words, the advancement in the art made by the Machler patent, at least insofar as the embodiments of Figs. 15-23 is concerned, resides in the use of the unique light connecting device illustrated in Fig. 16. Because of its particular structure, it already accomplishes all of the light transfer that is necessary to make the Machler spectrographic system function properly. The examiner's nebulous and conclusory assertion that it would be obvious to "modify" Machler's device with Rockwell III's GRIN lens, without specifying how this modification should be made or what improvement would be expected, is a clear indication that the examiner's position is based on hindsight.

The Federal Circuit has made clear that to support a case of prima facie obviousness based on a combination of references, the references themselves must provide some suggestion or motivation to make the modifications necessary to achieve the combination being claimed. See, In re Sang Su Lee, 277 F.3d 1778 (Fed. Cir. 2002) and the cases cited therein. That

{JEM1154.DOC;1}

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suggestion may come from, inter alia, the teachings of the references themselves and, in some cases, from the nature of the problem to be solved. See Por-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1570, 1573 (Fed. Cir. 1996); In re Rouffet, 149 F.3d 1350, 1359 (Fed. Cir. 1998) ("the Board must identify specifically . . . the reasons one of ordinary skill in the art would have been motivated to select the references and combine them.")

In this case, the complete failure of the examiner to identify either the particular modification that he is contemplating or the advantage one would expect from making that modification is a clear indication that this rejection is based on a hindsight reconstruction of the prior art using applicants' specification as a guide, not an impartial assessment of what these references fairly suggest. Accordingly, this rejection is in error and should be withdrawn.

If any fee is due with this response, please charge our Deposit Account No. 03-0172.

Respectfully submitted,



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